

L 19666-63 EWT(1)/EWP(q)/EWT(m)/EWP(B)/BDS/ES(s)-2 AFFTC/ASD/ESD-3/
IJP(C)/SSD Pt-4 GG/JD
ACCESSION NR: AR3006988 S/0058/63/000/008/E049/E049

SOURCE: RZh. Fizika, Abs. 8E348

AUTHOR: Kostrygin, V. A.

TITLE: Investigation of electric breakdown of thin layers of single
crystals of alkali halide salts

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov, Riga, 1962,
365-369

TOPIC TAGS: electric breakdown, alkali halide single crystal ,
thin layer , ionization, avalanche-streamer mechanism

TRANSLATION: An experimental investigation was made of the electric
breakdown of single crystals of NaCl, KCl, KBr, and KI at $d =$
 $= (1.50)\mu$ in a field close to homogeneous. The specimens were made
to break down using rectangular voltage pulses with a front 5×10^{-8}

Card 1/3

The mechanism of electric ...

S/024/62/000/004/001/007
E194/E455

the cathode and according to the proposed mechanism it should be practically independent. Accordingly, rock salt specimens 10 microns thick were prepared in two forms, having cross sections of 0.45 mm and 1.2 mm. Probability plots of breakdown time show that these are respectively 5.5 and 5 microseconds, the difference being within the limits of experimental error. This result supports the hypothesis of multi-avalanche streamer breakdown mechanism. There are 3 figures.

SUBMITTED: March 15, 1962

Card 2/2

247800

39544
S/024/62/000/004/001/007
E194/E455

AUTHORS: Vorob'yev, A.A., Vorob'yev, G.A., Kostygin, V.A. (Tomsk)
TITLE: The mechanism of electric breakdown of thin layers of solid dielectric
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.4, 1962, 66-68.

TEXT: The breakdown of thin (10^{-3} cm and less) specimens of salt has been explained by the electron avalanche theory due to F. Seitz (Phys. Rev., v.76, 1949, 1376) and by what is here termed the multiple avalanche streamer mechanism. In the avalanche streamer method of discharge with thicknesses greater than 10^{-3} cm, the positive space charge remaining at the anodes due to an avalanche is sufficient to form a streamer. When the thickness is less than 10^{-3} cm, the space charge of the anode necessary to originate a streamer accumulates by attraction to the anode area of several electron avalanches. According to the Seitz mechanism, the discharge time should depend on the area of

Card 1/2

VOROB'YEV, A.A.; VOROB'YEV, G.A.; KOSTRYGIN, V.A.

Relation between the time lag and the path length in air.
Zhur. tekhn. fiz. 31 no.9:1135-1137 S '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki
i avtomatiki pri Tomskom politekhnicheskoye imeni
S.M. Kirova.
(Electric discharges)

VOROB'YEV, G.A.; KOSTRYGIN, V.A.; MURASHKO, L.T.

Obtaining thin dielectric films. Prib.i tekhn.eksp. 6 no.5:198-199
S-0 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki
i avtomatiki Tomskogo politekhnicheskogo instituta.
(Dielectrics)

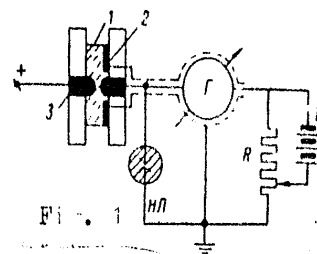
Study of the electric conductivity...

S/181/61/005/009/019/039
B102/B104

ASSOCIATION: Tomskiy politekhnicheskii institut im. S. M. Kirova (Tomsk
Polytechnical Institute imeni S. M. Kirov)

SUBMITTED: April 10, 1961

Legend to Fig. 1: (1) specimen, (2) protective ring, (3) liquid electrodes.
Г - mirror galvanometer, НН - neon tube (shunt).



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Study of the electric conductivity...

S/181/61/003/009/019/039 ✓
B102/B104

nesses. The shapes of the curves $I = f(E)$ proved to be almost independent of the specimen thickness. Only in some $15 - 20\mu$ specimens the curves became flatter near the break down voltage. The measurement of $I = f(d)$ at constant E showed that I increased with increasing d . This phenomenon which was observed for the first time in solid dielectrics results from impact ionization. For NaCl the curves $\log I = f(d)$ deviate little from the linear form, for KCl they deviate strongly. This fact is ascribed to a volume charge that did not form due to ionization. It may be caused by high-voltage polarization or by the capture of electrons by lattice defects. This volume charge distorts the field and renders the dielectric inhomogeneous. Owing to this volume charge relation (3) is not fulfilled. The conductivity of the single-crystal films was by 7 - 8 orders of magnitude higher than that in ordinary single crystals of the same substance in weak fields. This also indicates impact ionization and ionic conductivity. The authors thank Professor Doctor A. A. Vorob'yev for advice. There are 3 figures and 8 references: 7 Soviet and 1 non-Soviet. The latter reads: F. Seitz, Phys. Rev. 76, 9, 1376, 1949

Card 2/3

S/181/61/003/009/019/039
B102/B104

AUTHORS: Vorob'yev, G. A., Kostygin, V. A., and Kostygina, N. P.

TITLE: Study of the electric conductivity of NaCl and KCl single crystals in a thin film

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2680 - 2682

TEXT: The authors studied the electric conductivity of some micron-thick NaCl and KCl single crystal films in a homogeneous electric field

(10^6 v/cm). This study was made to experimentally verify the formula

$\log i \approx 0.3 \frac{d}{\lambda} + a$; i is the current passing through the dielectric, d the thickness of the film and λ the path of an electron between two ionization collisions (on the assumption of impact ionization of the dielectric). This formula is of interest since it permits a direct estimation of λ . The measurements were made with the aid of the arrangement schematically shown in Fig. 1. First, the specimen had maximum thickness (20μ). The current was measured by a highly sensitive mirror galvanometer. The specimen thickness was then reduced by $4 - 5\mu$ and the current was again measured. Thus, the currents were measured in the same specimen with 3 - 4 different thick-

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KOSTRYGIN, V.A.; MURASHKO, L.T.

Electric strength and discharge time lag as a function of the
lattice energy in ionic crystals. Izv.vys.ucheb.zav.; fiz. no.5:
175-176 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut pri Tomskom politekhnicheskoy
institute imeni S.M.Kirova.

(Ionic crystals--Electric properties)

24403

S/024/61/000/002/001/014
E194/E135

On the dependence of the breakdown time and the breakdown voltage of dielectrics on their thickness

theoretical interest to verify this experimentally. The results presented are in agreement with the hypothesis of impact ionisation breakdown of solid dielectrics.

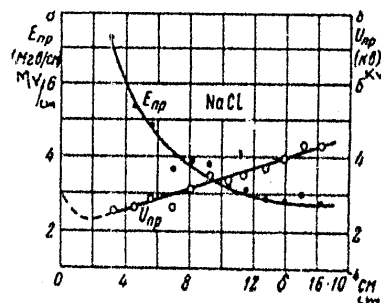
There are 4 figures and 9 references: 8 Soviet and 1 English. The English language reference reads as follows:

Ref.8: F. Seitz. On the theory of electron multiplication in crystals. Phys. Rev., 1949, 76, 9, 1376.

SUBMITTED: October 18, 1960

Fig. 4

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21403

S/024/61/000/002/001/014

E194/E135

On the dependence of the breakdown time and the breakdown voltage of dielectrics on their thickness

the delay time (10^{-5} sec) and the thickness, d , cm. The sudden change in breakdown mechanism at a critical thickness of about 10^{-3} cm is noted and briefly discussed. The relationship between the delay time (10^{-4} sec) and the thickness, d , mm, was studied experimentally for air at atmospheric pressure and the results are plotted in Fig.3. The overvoltage was 10-15%. The electrodes were radiated with weak ultraviolet light to avoid statistical delay effects. Here again, at a thickness of 1.6 mm, there is a sudden change in the delay time due to change in the mechanism of breakdown. Curves of this kind are typical for dielectrics in which breakdown commences with impact ionisation. According to Paschen's law, starting from a certain value of pd , where d and λ are very near to one another U_{br} commences to increase as pd is reduced. Fig.4 shows the relationship of E_{br} (MV/cm) and U_{br} (kV) and thickness (δ , cm) for rock salt; as the thickness is reduced E_{br} increases and possibly if the thickness were still further reduced U_{br} might increase. It would be of great

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24403
S/024/61/000/002/001/014
E194/E135

On the dependence of the breakdown time and the breakdown voltage of dielectrics on their thickness

breakdown occurs. In the first ionisation theory of breakdown of solid dielectrics, due to A.F. Ioffe, it was shown that the electric strength should increase with reduction of thickness; it was later noted that in thin solid dielectrics the delay time may be large because of its statistical nature or because of the large number of avalanches necessary to form a conducting path between the electrodes. Early experiments on rock salt of micron thickness confirm the increase in electric strength and delay time in thin layers and show that breakdown of solid dielectrics commences with impact ionisation. Fig.1 shows the dependence of the delay time (in secs) on the thickness, d , in μ (left ordinate, KI; right ordinate, NaCl, KCl, KBr). In this figure the delay time is plotted on the y axis and the thickness on the x axis for rock salt and crystals of KCl, KBr and KI. As the thickness is reduced the delay time increases. Using the data of this figure and other data on discharge delay in crystals of 0.1 mm thick and more, a curve is constructed in Fig.2 for the relationship between

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24403

S/024/61/000/002/001/014
E194/E135

AUTHORS: Vorob'yev, A.A., Vorob'yev, G.A., and Kostrygin, V.A.
(Tomsk)

TITLE: On the dependence of the breakdown time and the
breakdown voltage of dielectrics on their thickness

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Energetika i avtomatika, 1961, No.2, pp. 62-64

TEXT: Tests show that there are many identical relationships
between the impulse breakdown of solid dielectrics and of air, and
there is reason to return to the hypothesis of breakdown of solid
dielectrics by impact ionisation with electrons. It is of interest
to study the relationship between the breakdown voltage and delay
time of the dielectric as a function of thickness. In air, when
 $pd \geq 1000-1500$ mm Hg.cm and the overvoltage is several percent,
streamer discharge occurs and at atmospheric pressures the delay
time is of the order of 10^{-8} sec. At low air pressures when
 $pd < 200$ mm Hg.cm the delay time is of the order of 10^{-5} sec.
This increase in delay time is due to a change in the mechanism of
breakdown. At low values of pd , Townsend's electron avalanche

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Card 1/5

KOSTRYGIN, V.A.; MURASHKO, L.T.

Investigation of the pulse breakdown of thin layers of ionic crystals.
Izv.vys.ucheb.zav.; fiz. no.1:169-170 '61. (MIRA 14:7)

1. Tomskiy politekhnicheskii institut imeni S.M.Kirova.
(Breakdown, Electric) (Ionic crystals--Electric properties)

88059

S/139/60/000/006/028/032
E032/E414

Dependence on Thickness of the Breakdown Time of a Dielectric

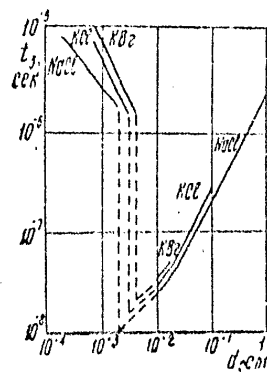


Рис. 1. Зависимость времени запаздывания разряда t_b в кристаллах NaCl, KCl и KBr от толщины образца.

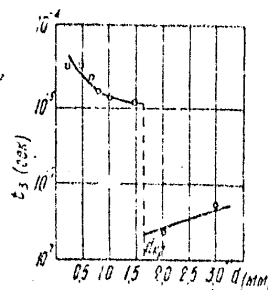


Рис. 2. Зависимость времени запаздывания разряда t_b от длины воздушного промежутка d .

Fig.1.

Fig.2.

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E032/E414

Dependence on Thickness of the Breakdown Time of a Dielectric

$t = 20^{\circ}\text{C}$ and the spherical electrodes irradiated with UV to avoid statistical effects. The analogy between the two figures is apparent. There are 2 figures and 8 references 7 Soviet and 1 non-Soviet.

ASSOCIATION Tomskiy politekhnicheskii institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M.Kirow)

SUBMITTED: October 6, 1960

Card 2/3

9.2110 (1001, 1043, 1145)

86059
S/139/60/000/006/028/032
E032/E414

AUTHORS: Vorob'yev, A.A., Vorob'yev, G.A. and Kostygin, V.A.

TITLE: Dependence on Thickness of the Breakdown Time of a Dielectric

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, 1960, No.6, pp.166-167

TEXT Previous work on the electrical breakdown of solid dielectrics (Ref.1 to 4) showed that there exists an analogy between the behaviour of solid dielectrics and air. It was shown that the formation of discharge in NaCl and KCl crystals, having a thickness of a few tenths of a millimeter or more, is in fact a single cascade process. Fig.1 shows the dependence of the discharge delay time t_d as a function of the specimen thickness of NaCl, KCl and KBr crystals (t_d is in seconds, d is in cm). Fig.2 which was obtained experimentally by the present authors shows the discharge delay time t_d for an air gap as a function of the air gap length d (in mm). The results shown in Fig.2 were obtained with $p = 759$ mm Hg.

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83001

Investigation of the Discharge Delay in Single
Crystals of NaCl of Small Thickness

S/181/60/002/008/020/045
B006/B070

steeply for thicknesses of a few microns, is not explained by the theories of Rogovskiy, Zeener (Ziner) and Frenkel', or Fowler. The author explains it by means of the impact ionization theory, and shows that an explanation is possible according to the theory of Seitz also. E_{br} decreases exponentially with increasing δ , U_{br} rises linearly with increasing δ . In this connection, results of other authors are also discussed, and A. F. Ioffe is mentioned. The author thanks Professor Doctor A. A. Vorob'yev, and G. A. Vorob'yev, Candidate of Technical Sciences, for guidance and help. There are 4 figures and 14 references: 9 Soviet, 2 US, 1 Japanese, and 2 British.

SUBMITTED: January 3, 1960

Card 3/3

83001

Investigation of the Discharge Delay in Single
Crystals of NaCl of Small Thickness

S/181/60/002/008/020/045
B006/B070

was registered by a high voltage impulse oscilloscope; the delay time was measured as the time between the beginning of the impulse and the discharge. Fig. 2 shows an impulse diagram taken for a thickness 10μ of the sample. The calibrating potential had a frequency of 0.98 Mc/sec. In all, 280 oscillograms were taken for layer thicknesses in the range $3 \cdot 10^{-4}$ - $18 \cdot 10^{-4}$ cm. For these, n_t/n_0 was determined as a function of the delay time (n_0 = number of samples investigated, n_t - number of those that showed a delay time (t)). The experimental curve can be well approximated by $n_t/n_0 = \exp(-t/t_m)$. t_m is the average delay time which is determined by $n_t/n_0 = 36.8\%$ ($t=t_m$). $t_m(\delta)$ is shown in Fig. 3. Fig. 3 also shows the number φ of the samples in percentage ratio of the total number of samples of a given thickness, which have a delay time of $5 \cdot 10^{-8}$ sec. Fig. 4 shows the breakdown potential U_{br} and the breakdown field strength E_{br} as functions of thickness δ of the layers. The following conclusions are derived from the experiments: The delay time is of the order of microseconds and drops exponentially with increasing δ . φ increases with δ almost linearly. The fact that the delay time rises so

Card 2/3

83001

S/181/60/002/008/020/045
B006/B070

24.7800

AUTHOR: Kostygin, V. A.

TITLE: Investigation of the Discharge Delay in Single Crystals of NaCl of Small Thickness

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 8, pp. 1841-1845

TEXT: Investigations carried at Tomskiy politekhnicheskii institut (Tomsk Polytechnic Institute) have shown that the discharges in gases and solid dielectrics follow analogous laws. G. A. Vorob'yev has already (Ref. 7) pointed out the discharge delays in thin layers of a dielectric resulting from the steep rise of the current. The delay time increases with decreasing thickness of the layer. In the present work, experimental results on the discharge delays in thin single crystals of rock salt are given. First the preparation of the sample is described in short. Fig. 1 shows a 120 times enlarged microphotograph of a sample. At the thinnest point, the sample has a thickness of 20μ . The samples were exposed to rectangular pulses whose front had a duration of $5 \cdot 10^{-8}$ sec. The breakdown

Card 1/3

KOVCHAVTSEV, P.G., inzh; KOSTRYGIN, V.A., inzh.; STOROZHUK, K.S., inzh.

Reconstruction of RVS-110 valve-type discharger. Elek.sta. 30
no.2:65-66 F '59. (MIRA 12:3)
(Electric power distribution--Equipment and supplies)

KOSTRUSIAK, Jerzy, mgr.

Centrostal's technical and commercial information service.
Wlad hut 21 no.2:60-61 F '65.

KOSTRUSIAK, Jerzy (Katowice)

Press, radio, television in the service of industrial safety and hygiene in the building and building material industries. Przegl budowl i bud mieszk 34 no.11:679-680 N '62.

KOSTRUSIAK, Jerzy, mgr

Information on publications of the Central Publishing
Committee. Wlad hut 15 [i.e. 20] no. 2: 64-65 F '64.

KOSTRUSIAK, Jerzy, mgr.

Publications of the Centrostal in the field of technological
consulting and rational and economical application of steel.
Wlad hutn 18 no.6:185-187 Je '62.

KOSTRUSHIN, A.V., inzh.

Double-chamber furnace for burning woodwaste and other small size
fuel. Izobr. v SSSR 3 no.3:8-9 Mr '58. (MIRA 11:3)
(Wood as fuel) (Furnaces)

VYMAZAL, J.; Technická spolupráce: HOVORKOVA, B.; KOSTRUNKOVA, A.

Contribution to the mechanism of globulin reactions in the cerebrospinal fluid and their relation to individual protein fractions. Cesk. neurol. 26 no.6:388-393 N°63.

1. Neurologická klinika fakulty všeobecného lékařství KU v Praze, přednosta akademik K. Henner.

*

VYMAZAL, J.; technicka spoluprace HCVORKOVA, B.; KOSTRUNKOVA, A.; VONKOVA, J.

Contribution to the problem of the sensitivity of colloid reactions in the cerebrospinal fluid with special reference to the collargol reaction. Cesk. neurol. 25 no.6:365-373 N '62.

1. Neurologicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta akademik K. Henner.
(CEREBROSPINAL FLUID) (COLLOIDS) (SILVER)

KOSTRUBINA, Ye.N.

Nature of the course of oculocardiac reflex in adults. Uch.
zap. Orlov. gos. ped. inst. 18:93-100 '63.

Age characteristics of the oculocardiac reflex. Ibid.:101-110
(MIRA 17:5)

KABANOV, A.N.; NOSTIMBINA, Ye.N.

Characteristics of the course of oculocardiac reflex in small
children. Uch. zap. MGPI no.168:162-180 '62. (HWA 19:4)

KOSTRUBINA, Ye.N.

Oculocardiac reflex in 4-7 year old children according to
electrocardiographic data. Uch. zap. VPI no.168:159-166
'62. (MIRA 19:2)

[illegible]

Kostrubin, M. V.

(The formation and conversion of hemicellulose in wheat stems. M. V. Kostrubin (State Pedagog. Inst., Orlovsk Dist.). *Biotekhnika* 20, 580-7 (1955).—Stems of *Triticum vulgare* were collected for study at four stages of the wheat growth: 1) the early period of spike formation, 2) the beginning of milky juice formation, 3) the beginning of wax formation, and 4) the complete grain maturity. Free fructose and fructosan were found in the wheat stems. As the lignification process progressed the quantities of fructose and fructosan gradually became reduced to zero. Starch was not found in the wheat stems. It is, therefore, assumed that fructosan constitutes the only form of polysaccharide reserve. Pectin substances which were found only in small quantities in the wheat stems even in the early stages of the plant's growth became sharply reduced as lignification progressed. Cellulose accumulation in the wheat plant stems ends with the completion of the waxy stage, thereafter its quantity becomes reduced gradually. It is believed that cellulose is converted into other substances such as xylan. The presence in the wheat stems of hemicelluloses A and B was also demonstrated. Some experimental data indicated that hemicellulose A consists basically of polysaccharides of the glucose type, namely, glucan, glucuronide, and xylan plus small quantities of mannan, araban, and possibly galactan. As the process of lignification advanced there occurred in the hemicelluloses an accumulation of pentoses and a reduction in the hexoses. It is believed that pectosans are formed directly from hexosans through the process of oxidative decarboxylation.

B. S. Levine

KOSTRUBIN, M. V.

Chemical Abst.
Vol. 48 No. 3
Oct. 10, 1954
Biological Chemistry

(4)
Pectin substances and hemicelluloses of the stems of hemp. M. V. Kostrubin, Z. V. Zababurina, and V. S. Kon'kova (Orlov State Pedagog. Inst., Chair of Chem.). *Biokhimiya* 18, 263-70(1953); cf. *Scientific Repts. of the Orlov State Pedagogical Inst.* No. 2, 113(1947).--Data obtained indicate that the compn. and transformation of pectin substances and hemicelluloses in the stems of flax and hemp during the process of their growth are alike.
B. S. Levine

KOSTRUBIN, M.V.

Pectic substances and hemicelluloses of flax stalks. Biokhimiya 18,
175-83 '53. (MLRA 6:4)
(CA 47 no.17:8843 '53)

1. Pedagog. Inst., Orlov.

IVANOV, M.V.; KOSTRUBA, M.F.

Microbiological investigations of the sulphur beds of the Carpathian Mountain region. Part 3: Formation of hydrogen sulfide in the Yazov sulphur bed. Mikrobiologiya 30 no.1:130-134 Ja-F '61.

(MIRA 14:5)

1. Institut mikrobiologii AN SSSR.

(CARPATHIAN MOUNTAIN REGION---BACTERIA, SULFUR)

(HYDROGEN SULFIDE)

BUCZYNSKI, Eugeniusz; GLOWACKA, Mirosława; KULPSZA, Halina; KOSTRUBALA, Maria

A case of moniliasis and aspergillosis of the lungs and paranasal sinuses in a 7-year-old girl. Otolaryng. Pol. 18 no.2:295-298 '64.

1. Z II Kliniki Pediatricznej Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. T. Lewenfisz-Wojnarowska); z Zakładu Radiologii Pediatricznej Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. K. Rowinski) i z Oddziału Laryngologii przy II Klinice Pediatricznej (Kierownik: doc. dr. med. J. Danielewicz).

KOSTRUBALA, Maria; WISNIEWSKA, Mirosława

Treatment of enterobiasis with the preparation Molevac. Wlad.
parazyt. 9 no.3:241-242 '63.

1. II Klinika Pediatryczna i Laboratorium PSK Nr 4 Akademii
Medycznej, Warszawa.
(PYRVINIUM COMPOUNDS) (OXYURIASIS)

JARZEBSKA, Danuta; KOSTRUBALA, Maria; KUBICKA, Krystyna; LESKIEWICZ, Wanda;
LAZOWSKI, Zygmunt; POLAKOWA, Irena

Further observations on the prevention of relapses of rheumatic disease
in children. Reumatologia Polska no.3:177-181 '60.

1. Z Poradni Reumatologicznej Instytutu Reumatologicznego w Warszawie
Dyrektor Instytutu: prof. dr med. E. Reicher Z Poradni Reumatologicznej przy II Klinice Chorob Dzieci AM w Warszawie p.o. Kierownika Kliniki: prof. dr med. T. Lewenfisz-Wojnarowska
(RHEUMATIC FEVER prev & control)

SZELAG, Janusz; KOSTURALA, Andrzej

Evaluation of the vaccine and effectiveness of vaccination against typhoid fever. XXIII. An epidemic of typhoid fever in Glinogojan in 1962/1963. Przegl. epidemiol., 18 no.4:433-438 '64.

1. Z Warszawskiej Wojewódzkiej Stacji Sanitarno-Epidemiologicznej w Arnie (Dyrektor: dr. med. J. Zarbent).

VIII, 1.1.1. section taken, read, post.; VIII, 1.1.1. section, read;
KOWALSKI, S.I., 1971.

Section of 1.1.1. section, taken, read, post.;

Section of 1.1.1. section, taken, read, post.

(1971, 1973)

1. Section of 1.1.1. section, taken, read, post.;
Section of 1.1.1. section, taken, read, post.

ROSTRI DA, J.

TECHNOLOGY

periodicals: HUTHIK Vol. 8, no. 11, Nov. 1958

ROSTRI DA, J. Clean ingots. p. 368

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

KOSTRUBA, I.; IGDAL, I.; MAYDEN, A.

Estonia-1 mobile mixed feed unit. Mk.-elev. prom. 28 no.11:23-24
N '62. (MIRA 16:2)

1. Ministerstvo proizvodstva i zagotovok sel'skokhozyaystvennykh
produktov Estonskoy SSR (for Konstruba, Igdal). 2. Tallinskiy
elevators (for Mayden).
(Tallinn--Feed mills)

KOSTRUBA, I.

Feedmilling industry in the Estonian S.S.R. Muk.-elev. prom. 27
no.2:15-16 F '61. (MIRA 14:4)

1. Nachal'nik Upravleniya khleboproduktov pri Sovete Ministrov
Estonskoy SSR.

(Estonia--Feed mills)

COUNTRY : Czechoslovakia
CATALOG :
ABS. JOUR. : RZKhim., No. 21 1959, No. 76643
AUTHOR : Valiky, I., Kostub, J., and Prasivkova, A.
INST. : Not given
TITLE : Experimental Data on a New Process for the Preservation of Eggs
ORIG. PUB. : Prumysl Potravin, 9, No 10, 526-529 (1959)
ABSTRACT : The results from preliminary experiments on the preservation of eggs by the coating of shells with a thin film of preserving paste (composition not given) are described. An insignificant decrease in the weight of the eggs and an increase in the size of the air cell are observed after storage for 6 months at a temperature of 15-42° and a relative humidity of 50-75%. The quality of the eggs met the requirements of the standard. A control batch of untreated eggs was

CARD: 1/2

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CARD: 2/2

KOSTROWICKI, Jerzy

Development bases of the Bialystok Voivodeship; Conference of the
Institute of Geography, Polish Academy of Sciences, Bialystok,
October, 8-11, 1962. Nauka polska 11 no.3:157-160 my-Je '63.

1. Instytut Geografii , Polska Akademia Nauk, Warszawa.

KOSTROWICKI, Jerzy

Development bases and trends of the Bialystok Voivodeship. Przegl
geogr 35 no.2:181-198 '63.

KOSTROWICKI, Jerzy

Conference of the Geographical Institute of the Polish Academy
of Sciences on the Bases of Development of the Bialystok
Voivodeship. Przegl geogr 35 no.2:302-305 '63.

KOSTROWICKI, Jerzy

Report form a stay in the United States and other overseas countries, March 23-October 23, 1961. Przegl geogr 34 no.3:633-645 '62.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300053-6

KOSTROWICKI, Jerzy

10th Pacific Science Congress. Przegl geogr 34 no.3:585-593 '62.

KOSTROWICKI, Jerzy

Poland

no title given

Visiting Professor at the University of Michigan,
Department of Geography

Warsaw, Przegląd Geograficzny, Vol 34, No 3, 1962,
pp 633-645.

"Report from a Sojourn in the United States and
other Countries Overseas". (Mar 23-Oct 23, 1961)

KOSTROWICKI, Jerzy

Poland

no title given

no affiliation

Warsaw, Przegląd Geograficzny, Vol 34, No 3, 1962,
pp 585-592.

"X-th Pacific Science Congress--Honolulu Aug 22-
Nov 6, 1961"

KOSTROWICKI, Jerzy

Geographical-agricultural problems in the detailed survey of land
utilization in Poland. Przegl geogr 32 no.3:227-279 '60.
(EEAI 10:3)

1. Zaklad Geografii Rolnictwa, Instytut Geografii PAN.
(Poland--Land)

KOSTROWICKI, Jerzy

Land utilization survey as a basis for geographical typology of agriculture. Przegl geogr Suppl. to 32:169-183 '60. (EEAI 10:4)

1. Polish Academy of Sciences, Institute of Geography, Department of the Geography of Agriculture, Warsaw.
(Poland--Land)

KOSTROWICKI, Jerzy, dr. Extraord. prof.

Economic geography in Poland; development and present state.
Przegl geogr Suppl. to v.31:21-3/4 '59. (EEAI 9:6)

1. Department of Economic Geography of Poland of the Geographical
Institute of the Warsaw University.
(Poland --Geography)

Sulfur-Bearing Raw Material in Poland

26-58-5-12/57

San river areas is continuing. There are also sulfur-bearing deposits in Soviet territory near L'vov. Together, all reliable sulfur-bearing deposits in Poland are estimated at 110.5 million tons, but more are bound to be discovered. Poland will obtain credit from the CSR to open up recent discoveries.

There are two schematic maps.

(Translator of this Polish language article Yu.V. Ilinich)

ASSOCIATION: Institut geografii Pol'skoy Akademii nauk, Varshava (The Polish Academy of Sciences Institute of Geography, Warsaw)

AVAILABLE: Library of Congress

Card 3/3

1. Zinc sulfides - Poland
2. Lead sulfides - Poland
3. Sulfur ores - Poland

Sulfur-Bearing Raw Material in Poland

26-58-5-12/57

former Zechstein Sea. Certain gypsum seams extending from Upper Silesia via Krakow and Sandomir farther east came under systematic exploitation during the first Polish Six-Year Plan. In the fall of 1953, the eminent Polish geologist Professor Stanislaw Pawlowski discovered a large sulfur deposit near Tarnobrzeg. Its area is 23 sq km with an estimated 105 million tons of pure sulfur. This deposit is second only to those in the US and Mexico. Their sulfur content in the sulfur-bearing layer of the Tarnobrzeg area varies between 19 and 28%, the thickness of the seam from 8 to 20 m. A major part of the deposit is beneath the Visla river valley. The depth of the deposit is between 60 and 110 m. Basing the prospecting on his geological theory of disintegration of gypsum into sulfur and limestone, Professor Pawlowski has discovered several other sulfur deposits in the southern part of the Kieleckie Województwo, an estimated 5.5 million tons of pure sulfur. These deposits are at a depth of 20 to 65 m and contains 18 - 24% sulfur. The layer is 5 to 6 m thick. Another sulfur-bearing deposit was discovered in Grzybów. The relevant layers are at a depth of 160 to 200 m, the sulfur content attains 30%, the layer is 10 m thick. Prospecting in the Visla and

Card 2/3

AUTHOR: Kostrowicki, Jerzy, Professor 26-58-5-12/57

TITLE: Sulfur-Bearing Raw Material in Poland (Seronomoye syr'ye v Pol'she)

PERIODICAL: Priroda, 1958, Nr 5, pp 67-70 (USSR)

ABSTRACT: Sulfides, among them mainly the sulfide ores of zinc and lead, were formerly the principal raw material for the production of sulphuric acid in Poland. They are found in the Triassic limestones of the north and east borderlands and in the surroundings of the Upper-Silesian hard-coal basin. Pyrites are found in the Swietokrzyskie Mountains in connection with Devonian limestones. However, more pyrites had to be imported. Due to the development of a chemical industry in Poland and the increasing demands for sulphuric acid, gypsum and anhydrite deposits of the country were considered as potential raw material in the 6-Year Plan 1949-1955. These deposits were traced back to two seas that covered Poland in the Upper Permian and Miocene epoch. However, deposits in the Kujawy and Pomorze regions could not be exploited, due to their depth of over 1,000 m. Only the sites of certain anticlinal bulges can be successfully mined. Similar possibilities are located on the edges of the

Card 1/3

AUTHOR: Kostrovitski, Jerzy (Poland) SOV-10-58-4-19/28

TITLE: Polish Investigations Into Land Utilization (Pol'skiye issledovaniya ispol'zovaniya zemel')

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1958, Nr 4, pp 131-134 (USSR)

ABSTRACT: The article deals with the preparation of detailed maps on the utilization of land in Poland. The work was started in 1947 at the initiative of the GUPP (Main Administration of Regional Planning) and was later continued in the laboratory of the Institute of Geography of the Polish Academy of Sciences under the supervision of Professor F. Ukhorchak. In 1954 Professor K. Dziewolski prepared the first map in a scale of 1 : 25,000 which proved to be of great value for the development and improvement of agricultural conditions. There are 5 English references.

1. Agriculture--Development 2. Cartography--Applications

Card 1/1

KOSTROWICHI, JERZY

Geography & Geology

Środowisko geograficzne Polski; warunki przyrodnicze rozwoju gospodarki narodowej. Warszawa, Państwowe Wydawn. Naukowe, 1957. 542 p. (Poland's geographical setting; the natural conditions of national economic development.)
MiPw

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, No. 3, March 1959
Unclass.

NOSTROWICKI, J.; WIECKOWSKI, K.

Scientific Congress of the Polish Soil Society. p.451.
PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW.
(Polska Akademia Nauk. Instytut Geografii) Warszawa.
Vol. 28, no. 2, 1956.

SOURCE: East European Accessions List (EEAL), Library of Congress
Vol. 5, No. 12. December 1956.

KOSTROWICKI, J.

International Conference on Regional Planning and Development.
p. 389. PRZEGŁAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW.
(Polska Akademia Nauk. Instytut Geografii) Warszawa.
Vol. 28, no. 2, 1956.

SOURCE: East European Accessions List (EEAL), Library of Congress
Vol. 5, No. 12, December 1956.

KOSTROWICKI, J.

"Development of Economic Geography During the Decade of People's Poland." P. 53
(PRZEGLĄD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW, Vol. 26, No. 3, 1954, Warszawa,
Poland.)

SO: Monthly list of East European Accessions, (EML), LC, Vol. 3,
No. 12, Dec. 1954, Uncl.

KOSTROWICKI, J.

"Townmaking functions and functional types of cities. . ." (TRANSLATED
ANONYMOUSLY. POLISH GEOGRAPHICAL REVIEW, Vol. 2, No. 2/2, 1952,
Warsawa, Poland.)

SO: East European L. G. Vol. 2, No. 12, Dec. 1952

KOSTROWICKI, A.

Two new European species of the subfamily Cuculiinae
(Lepidoptera, Phalaenidae). p.1.
ANNALES ZOOLOGICI. (Polska Akademia Nauk. Instytut
Zoologiczny) Warszawa.
Vol. 16, no. 7, Jan. 1956.

SOURCE: East European Accessions list (EEAL), Library of Congress
Vol. 5, No. 12, December 1956.

KOSTROWICKI, A.

"Some Notes on the Biogenesis of Fauna of Xerothermic Heights in the Valley of the Nida River." P. 66
(PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW, Vol. 26, No. 1, 1954, Warszawa, Poland.)

SO: Monthly List of East European Accessions, (BMAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

KOSTROWICKI, A.

"A glance at the fauna of the projected national park in Krzyzanowice on the Wida River" (p.13). CHRONMY PRZYRODE ORCZYSTA (Panstwowa Rada Ochrony Przyrody) Krakow, Vol 9, No 5, Sept./ Oct. 1953.

SO: East European Accessions List, Vol 3, No8, Aug 1954

KOSTROWICKI, A.

Fragmenta Faunistica Musei Zoologici Polonici - Vol. 6, no. 16, May 1953.

Studies on Lepidoptera of xerothermic hills in the valley of the lower Nida. p. 263.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

KOSTROVSKIY, G. I. Doc Cand Tech Scie -- (diss) ¹¹ ~~The Study~~
~~(The mechanism of~~ ^{and tear} ~~of operation and wearing off of the splined joints of the~~
 gear-driven transmissions." City of Zernovoy (Rostovskaya
 Oblast), 1957. 14 pp 1 graph sheet 20 cm. (Min of Sovkhozes
 USSR. All-Union Scientific Research Inst ^{of} ~~for~~ Mechanization
 and Electrification of Sovkhozes) ^(VNIIMES), 106 copies
 (KL, 21-57, 102)

KOMAROV, Aleksey Nikolayevich; KOSTROVSKIY, Georgiy Ivanovich; DUBROVSKIY,
V.A., redaktorp BALLOD, A.I., tekhnicheskiiy redaktor

[Repair of "Stalinets-80" tractor] Remont traktora "Stalinets-80."
Izd. 2-oe, perer. i dop. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956.
383 p. (MLRA 9:11)

(Tractors--Repairing)

ZYATIN, Nikolay Aleksandrovich; KOSTROVITSKIY, Naum Yur'yevich

[Electric welding of rails on street railroad tracks]

Elektrovanna'a svarka rel'sov v putiakh tramvaia. Moskva,
Stroizdat, 1965. 33 p. (MIRA 18:5)

KOSTROVENKO, A., ispolnyayushchiy obyazannost' inzhenera.

Guarantee of success. Kinomekhanik no.6:6-7 Je '53.

(MLRA 6:8)

1. Oblupravleniye kinofikatsii (Khar'kov).

(Moving-picture projection)


SOV/58-59-5-11878

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 281 (USSR)

AUTHORS: Pisarev, V.D., Kornilov, A.V., Kostrova, Z.P., Bragina, T.D.

TITLE: Spectral Analysis²¹ of Tin Slags

PERIODICAL: Tr. Sibirsk, fiz.-tekhn. in-ta pri Tomskom un-te, 1958, Nr 36, pp 269-272

ABSTRACT: The authors describe a spectrographic method of analyzing tin slags, samples of which have been solubilized. They used an ISP-22 spectrograph and an IT-2 generator as the excitation source. The divergence from the results of chemical analysis is characterized by a mean arithmetical error of 3.2 - 7.5%. 

Card 1/1

KOSTROVA, Z.P.

18(6) PAPER I BOOK EXPLANATION 89/179

Ученые-металлурги, спелеологи, геологи, химики, физики, биологи, медики, инженеры, 1975

Вопросы... (Paper read at the Second All-Union Conference of Analytical Spectroscopists, Moscow, 1975). Moscow, 1975. 128 p. 1,400 copies printed.

Sponsoring Agency: Spetsialno-issledovaniya obshchestvennoy metallurgii.

Editorial Board: M.S. Artyukhin, A.S. Buzovskiy, I.I. Kuznetsov, V.V. Polyubov, L.S. Zil'manov. Mosk. M.: I.S. Trubov.

NOTE: This book is intended for analytical chemists in the field of non-ferrous metallurgy.

CONTENTS: This is a collection of papers dealing with the use of the spectroscopic method in the field of non-ferrous metallurgy. The collection contains several elements in the field of analytical chemistry, including a review of the practical application of the method, a number of papers dealing with problems in the prediction of standard samples. For a brief account of the state of affairs as of 1975 in this field in the USSR, see Table of Contents, first article. There are a few scattered references, both Soviet and non-Soviet.

12. Kuznetsov, I.I. [Spectroscopic analysis of light metals]. Preparation of Standard Samples for the Spectroscopic Analysis of Light Metals. 77
13. Spaschik, A.G., A.V. Rudymov, and S.A. Prida [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
14. Prida, S.A. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
15. Spaschik, V.I. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
16. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
17. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
18. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
19. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
20. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
21. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80
22. Rudymov, A.V. [Fastest way to analyze light metals]. Bulletin of the Institute for Non-ferrous Metals and Gold. Moscow, 1975. 10 p. 1,000 copies printed. 80

ILLEGIBLE

KOSTROVA, Z.P.

Category : USSR/Optics - Optical methods of analysis. Instruments

K-7

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2520

Author : Rivkina, M.A., Pisarev, V.D., Kornilov, A.V., Kostrova, Z.P., Kotel'nikova, L.A., Levchenko, M.P.

Inst : Novosibirsk Inst. of Railroad Transport Engineers and Novosibirsk Tin Plant, USSR

Title : Spectral Analysis of Tin

Orig Pub : Zavod. laboratoriya, 1955, 21, No 9, 1081-1083

Abstract : Description of a method for the spectral analysis of tin of various grades with impurities of Cu, Pb, As, Sb, Bi, and Fe. Standard samples for the determination of Bi, Pb, Sb, and Cu were obtained by diluting the dual alloys (one of these elements and tin) in pure tin. Standards for As and Fe were prepared separately. A description of the analysis procedure is given. The mean arithmetic error in the determination of the impurities in the tin does not exceed $\pm 7 - 9\%$. The analysis of a single sample for six elements lasts 50-60 minutes.

Card : 1/1

KOSTROVA, Z.P.

PISAREV, V.D.; KORNILOV, A.V.; KOSTROVA, Z.P.

Spectrum analysis of black tin. Izv.AN SSSR.Ser.fiz.19 no.2:210-211
Mr-Ap '55. (MLRA 9:1)

1.Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta.
(Tartu--Spectrum analysis--Congresses)

KOSTROVA, Z. P.

USSR/ Chemistry - Quantitative analysis

Card 1/1 Pub. 43 - 67/97

Authors : Pisarev, V. D.; Kornilov, A. V.; and Kostrova, Z. P.

Title : Spectral analysis of stannous babbits

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 284-285, Mar-Apr 1954

Abstract : Brief announcement is made on the development of a method for quantitative spectral analysis of babbits (Sn-Sb-Cu alloys) for their content of elements (Cu, Sb, Pb, Bi, Fe and As). The rapidity and accuracy of the spectral analysis method were found to satisfy the requirements of industry. Table.

Institution :

Submitted :

KOSTROVA, Y. P.

9
8
8

1088 Spectrographic analysis of tin. M. A. Riv-
kina, V. D. Maslov, A. V. Kornilov, E. P. Kostrova,
L. A. Kotelnikova and M. P. Levenchuk (New
Siberia Inst. Railway Transport Engineers and New
Siberia Tin Works, Zavod. Lab., 1086, 21 (0).
1081-1083. Spectrographic determinations of Pb,
Cu, Bi, Fe, Sb and As in tin, with tin and tin-alloy
electrodes, are described. G. S. Smith

PM

KOSTROVA, Ye.I.; BOGDANOVA, N.V.

Bacterial spoilage of canned fish in tomato sauce. Kons.i ov.
prom. 17 no.9:37-39 S '62. (MIRA 15:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Fish, Canned) (Food--Bacteriology)

KOSTROVA, Ye.I.; MAZOKHINA, N.N.; MAYDENOVA, L.P.

Development of scientifically based methods of sterilization
in food canning. Kons.i ov.prom. 17 no.6:36-38 Je '62.
(MIRA 15:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut
konservnoy i ovoshchesushil'noy promyshlennosti.
(Food, Canned--Sterilization)

LOKSHIN, Ya.Yu.; NAZAROVA, A.I.; KOSTROVA, Ye.I.; KALUGINA, L.N.

Use of rectangular tin cans of large holding capacity. Kons.i ov.prom. 16
no.4:25-31 Ap '61. (MIRA 14:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Tin cans)

APT, F.S.; KOSTROVA, Ye.I.; MATROZOVA, R.G.; NEKHOTENOVA, T.I.; ROGACHEVA, A.I.; NOSKOVA, G.L., kand. biol. nauk, retsenzent; SYCHEVA, M.Ye., mikrobiolog, retsenzent; NAMESTNIKOV, A.F., kand. tekhn. nauk, spets. red.; MURASHEVA, O.I., red.; SOKOLOVA, I.A., tekhn. red.

[Microbiological control in the canned food, concentrated food and dried vegetables industry] Mikrobiologicheskii kontrol' konservnogo, pishchekontsentratsionnogo i ovoshchesushil'nogo proizvodstva. Moskva, Pishchepromizdat, 1961. 114 p. (MIRA 14:11)
(FOOD-MICROBIOLOGY)

NAZAROVA, A.I.; KOSTROVA, Ye.I.

Preserving and packaging semiprocessed vegetables to be used in meals.
Kons.i ov.prom. 15 no.5:16-17 My '60. (MIRA 13:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Vegetables--Preservation)

KOSTROVA, Ye. I., Cand Biol Sci -- (diss) "Problems of the pre-treatment of tomatoes and tomato products." Moscow, 1960. 18 pp; (Moscow Order of Lenin Agricultural Academy im K. A. Timipyazev); 120 copies; price not given; (KL, 17-60, 147)

KOSTROVA, Ye.I.

Antimicrobial properties of tomatoes. Kons. i ov. prom. 14 no.8:
38-40 Ag '59. (MIRA 12:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Tomato products--Bacteriology)

KOSTROVA, Ye.I.

Bacterial spoilage of tomato products and a new method of bacteriological control. Kons. i ov.prom. 12 no.7:42-44 J1 '57.

(MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti.

(Tomato products--Bacteriology) (Food--Bacteriology)

KOSTROVA, Ye.I.

New methods for sterilizing tomato products. Kons.i ov.prom.
12 no.6:19-22 Je '57. (MLRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Tomatoes---Preservation)

KOSTROVA, E. I.

Author : Kostrova, E. I.

1-1

Title : Ref. bur. - Biol., No. 5, 1955, 1956

Author : Kostrova, E. I.

Title : ~~Microbiology~~

Title : Conditions of Microorganism Development in Food Preserves

Orig. Sub : Konservn. i ovoshchamush. No. 5, 1955, No. 1, 1956

Abstract : For the first hour of storage at 15° the quantity of microorganisms in raw vegetable preserves decreases; in subsequent hours it begins to increase. At an air temperature above 25° transportation and storage of raw pulp may not be longer than 2 hours. When tomato preserves are infected with subtilis-mesentericus bacteria in quantities over 10 thousand per g, the author observed deterioration of preserves in storage.

End 1/1

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300053-6

MAZOKHINA, N.N.; KOSTROVA, Ye.I.

Effect of antibiotics on the anaerobic cultures of *Clostridium sporogenes*
and *Cl. botulinum*. Trudy VNIIAOP no.11:30-33 '62. (MIRA 17:9)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300053-6

KOSTROVA, Ye. A.

"Problems of Stability in Cases of Phase-by-Phase and Three-Phase Automatic Redclosing." Sub 25 Jun 47, Moscow Order of Lenin Power Engineering Institute V. M. Molotov

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

POLYAKOV, N.G.; KOSTROVA, T.A.

Study of the biological activity of some drugs containing cardiac
glycosides during their storage at different temperatures.

Apt. delo 10 no. 2:56-59 Mr. Ap 161.

(CARDIAC GLYCOSIDES)

(MIRA 14:4)

GOLUB, A.M.; KOSTROVA, R.A.

Complex formation in the system VO^{2+} - CNS^- - solvent. Zhur. neorg.
khim. 5 no.3:726-730 Mr '60. (MIRA 14:6)
(Vanadium chlorate)
(Sodium thiocyanate)

GOLUB, A.M.; KOSTROVA, R.A.

Thiocyanate complexes of chromium (III) in nonaqueous
solutions. Ukr. khim. zhur. 29 no.8:784-789 '63.

(MIRA 16:11)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.

GOLUB, A.M. [Holub, A.M.]; KOSTROVA, E.A.

Thiocyanate complexes of vanadium (III) in methanol. Cop.
AN URSR no.8:1061-1064 '63. (MIRA 16:10)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno akademikom
AN UkrSSR A.K. Babko.
(Vanadium compounds) (Thiocyanates)

Investigation of Complex Formation in the System
 VO^{2+} - CNS^- - Solvent

S/078/60/005/03/039/048
 B004/B005

as in solutions of water with 25, 50 and 75% of acetone. Figure 3 shows the absorption curves for $\text{VO}(\text{ClO}_4)_2$ and $\text{VO}(\text{ClO}_4)_2 + \text{NaCNS}$, figure 4 the dependence of the optic density on the composition. The varying course of the two absorption curves suggests a complex formation. In aqueous solution, the complexes $\text{VO}(\text{CNS})^+$ and $\text{VO}(\text{CNS})_2$ are formed. An addition of nonaqueous solvents leads to a displacement of the water molecules from the inner sphere, and to a formation of anion complexes including $\text{VO}(\text{CNS})_4^{2-}$. There are 4 figures and 5 references, 2 of which are Soviet.

SUBMITTED: December 16, 1958

Card 2/2

AUTHORS: Golub, A. M., Kostrova, R. A.S/078/60/005/03/039/048
B004/B005TITLE: Investigation of Complex Formation in the System VO^{2+} - CNS^- - Solvent

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 726-730 (USSR)

ABSTRACT: The object of the present paper was the determination of more complicated complexes than the known VOSCN^+ . At first, the authors report on the investigation of the electrical conductivity in the system VO^{2+} - CNS^- - solvent. Water, and water + 50% of acetone, were used as solvents. The conductivity was measured according to Kohlrausch's method. An EO-7 oscillograph was used as null instrument, a generator of type ZG-10 as current source. Figure 1 shows that with increasing ion concentration the conductivity changes monotonously. The deviation from the additivity (diagram $\Delta\kappa$, composition, Fig 2) shows indistinct maxima which are ascribed to the complexes VOSCN^+ and $\text{VO}(\text{SCN})_2$. These complexes are little stable so that the investigation of the conductivity yielded no clear results. Therefore, the system was investigated by an SF-4 spectrophotometer in the wave band 320-1000 m μ in aqueous solution as well

Card 1/2

KOSTROVA, R.A.

Formation of vanadium (IV) thiocyanate complexes in solution. Visnyk
Kyiv.un.nc,2.Ser.fiz.ta khim. no.1:109-112 '59. (MIRA 14:8)
(Vanadium compounds)

Polymers with conjugate bonds...

S/190/62/004/006/012/026
B110/B138

oersted) for a polymer obtained from acetylacetonate in absence of the solvent than for one obtained in the presence of cyclohexanone. The dependence of $\log \rho$ on $1/T$ is linear for all polymers. The conductivities are 10^{-5} to $10^{-12} \text{ ohm}^{-1} \cdot \text{cm}^{-1}$, the activation energy $E = 10 - 15 \text{ kcal/mole}$. There are 5 figures and 4 tables.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR)

SUBMITTED: April 8, 1961

Card 4/4